

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 28

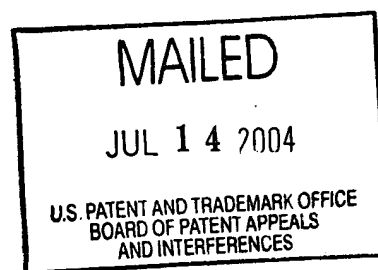
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte ROBERT N. FALCO

Appeal No. 2004-0034  
Application No. 09/226,467

ON BRIEF



Before GARRIS, KRATZ, and DELMENDO, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 (2004) from the examiner's final rejection of claims 1 through 13 and 16 through 23 (final Office action mailed Feb. 14, 2001, paper 19) in the above-identified application.<sup>1</sup>

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<sup>1</sup> The final rejection of claims 14 and 15, the only other pending claims, has been withdrawn. (Examiner's answer mailed Nov. 19, 2003, paper 24, p. 2.)

The subject matter on appeal relates to an earplug (claims 1-6, 22, and 23) and to a method of manufacturing an earplug (claims 7-13 and claims 16-21). Further details of this appealed subject matter are recited in representative claims 1, 7, 13, and 16 reproduced below:

1. An earplug comprising:  
a foam body free of detectable material; and  
a detectable insert encapsulated within said foam body, said foam body completely surrounding said detectable insert.

7. A method of manufacturing an earplug comprising:  
providing an earplug having a foam body free of detectable material;  
forming a channel in said foam body;  
placing a detectable insert in said channel; and  
allowing said foam body to encapsulate said detectable insert so that said foam body completely surrounds said detectable insert.

13. The method of claim 7 wherein:  
said channel is formed by inserting a punch in said foam body.

16. A method of manufacturing an earplug comprising:  
providing an earplug having a foam body;  
projecting a detectable insert into said foam body at a predetermined trajectory and speed; and  
allowing said foam body to encapsulate said insert so that said foam body completely surrounds said detectable insert.

Appeal No. 2004-0034  
Application No. 09/226,467

The examiner relies on the following prior art references as evidence of unpatentability:

Powers et al. (Powers)	4,253,452	Mar. 03, 1981
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Leonard	4,936,411	Jun. 26, 1990
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Claims 1 through 13 and 16 through 23 on appeal stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Powers and Leonard. (Answer, pages 3-4; final Office action, page 2.)

We affirm. Because we are in complete agreement with the examiner's factual findings and legal conclusions, we adopt them as our own and add the following comments for emphasis.<sup>2</sup>

As pointed out by the examiner (final Office action, page 2), Powers describes an earplug comprising plug bodies 12 made from an open cell resilient foam material having "memory" and a low recovery rate. (Column 1, lines 32-33; column 1, line 57 to column 2, line 51; Figures 1-5.) According to Powers, "[a] characteristic of the foam material is that upon distortion by

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<sup>2</sup> The appellant submits that "[t]he claims herein stand or fall together with the exception of claims 1, 7, and 13-16." (Substitute appeal brief filed Oct. 1, 2001, paper 23, p. 3.) Thus, pursuant to 37 CFR § 1.192(c)(7)(2003) (effective Apr. 21, 1995), we will consider these claims separately to the extent that they have been argued separately within the meaning of the regulation.

the application of a force thereto the foam material temporarily remains distorted and then slowly recovers its original shape." (Column 2, lines 35-38.) The reference further teaches that this characteristic allows the foam material to surround and intimately contact a free end of a cord 14 to secure the end in the plug body. (Column 2, lines 27-42.) Although Powers teaches that the loss of the earplug in some areas of use (e.g., food processing) may cause "great consternation and trauma" (column 1, lines 5-22), the reference does not teach a detectable insert encapsulated in the foam plug body as recited in appealed claim 1.

Leonard teaches that "[w]hen used on a food or beverage processing line, a pharmaceutical line, or any other processing line where there is exposure to consumable items, there is a risk that an earplug may fall into...foodstuff, beverage, pharmaceutical, or other substance being processed." (Column 1, lines 18-23.) To solve this problem, Leonard teaches securing a detectable insert in a stem of an earplug so that a lost earplug can be detected using equipment such as a metal detecting equipment. (Column 2, lines 3-38.)

Thus, substantial evidence supports the examiner's determination of obviousness. Specifically, we share the

examiner's view that one of ordinary skill in the art would have found it prima facie obvious to provide Powers's earplug with Leonard's detectable insert in order to eliminate the problem of lost or fallen earplugs in a product processing line.

The appellant argues that Leonard does not teach or suggest encapsulation of a detectable insert within a foam body.

(Substitute appeal brief, pages 4-6; reply brief filed Mar. 1, 2002, paper 25, page 4.) This argument is unpersuasive for the reasons well stated in the answer (pages 3-4). While Leonard teaches the use of a stem to secure the detectable insert, one of ordinary skill in the art would have understood that the foam described in Powers would necessarily be capable of performing the same function. That is, one of ordinary skill in the art would have reasonably expected that the foam described in Powers would encapsulate and thus secure any inserted object, including a detectable insert, because the foam is described as having recovery and memory characteristics sufficient to secure the free end of a cord. In considering the disclosures of prior art references, it is appropriate to take into account not only the specific teachings of the references but also the inferences which one skilled in the relevant art would reasonably be expected to draw therefrom. In re Hoeschele, 406 F.2d 1403,

Appeal No. 2004-0034  
Application No. 09/226,467

1406-07, 160 USPQ 809, 811-812 (CCPA 1969); In re Preda, 401 F.2d 825, 159 USPQ 342 (CCPA 1968); In re Shepard, 319 F.2d 194, 138 USPQ 148 (CCPA 1963).

As to separately argued claim 13, we agree with the examiner's analysis that Powers teaches the formation of a channel by inserting a punch into the foam body. (See Figures 2-5.)

As to separately argued claim 16, we again find ourselves in complete agreement with the examiner's findings and conclusions. (Answer, page 4.) Contrary to the appellant's apparent belief (reply brief, page 5), the recitation "projecting of a detectable insert into a foam body at a predetermined trajectory and speed" reads on mere automated or manual insertion of a detectable insert into a foam body. In other words, the claim recitation is not limited in scope to the preferred embodiment described in the specification at page 4 where a detectable insert is projected into the foam body by a source of energy (e.g., compressed air).

For these reasons and those set forth in the answer, we affirm the examiner's rejection under 35 U.S.C. § 103(a) of appealed claims 1 through 13 and 16 through 23 as unpatentable over the combined teachings of Powers and Leonard.

Appeal No. 2004-0034  
Application No. 09/226,467

The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

Bradley R. Garris  
Administrative Patent Judge

  
Peter F. Kratz  
Administrative Patent Judge

BOARD OF PATENT

APPEALS AND

## INTERFERENCES

  
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Appeal No. 2004-0034  
Application No. 09/226,467

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